Labour Market Policy Directorate

Strategic Policy and Planning

Formal Occupational Barriers

Final Report

by:
Jo-Ann Sobkow

May 2001

Human Resources and Skills Development Canada
Ressources humaines et Développement des compétences Canada

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1. Introduction

Because a highly trained and skilled workforce is essential in a global marketplace, setting standards is an important component in the development of such a workforce. Certification is formal recognition that a worker or potential worker has met a standard. Occupational standards and certification have long been characteristic of some sectors of the workforce, particularly trades and professions. A certificate attests that the holder has a specified set of skills, knowledge and abilities.

Certification can also have adverse impacts on certain labour market conditions. Occupations that are regulated through certification or licensing impose barriers to anyone who doesn't have the credentials as specified by the regulating body. Therefore, as a certificate or license becomes a condition of employment in a particular jurisdiction, labour market flexibility is limited.

Regulation for some occupations in Canada is very rigid while other occupations that are supposedly regulated seem to be accessible to those who do not have the required certification. To determine just how flexible the labour market is one should have up to date information on which occupations are accessible and which ones are not.

Objective

The basic objective of this project was to review the available literature and documentation and to prepare a comprehensive summary of institutional (formal) occupational barriers for all of the skilled occupations (Skill levels A and B) in the NOC. The review has identified all types of regulation that exists in all of the provinces and territories, how they are implemented, how they are defined, how they are applied in practice, and how effective they are.

2. Methodology

To identify institutional barriers and determine their effectiveness as barriers to immigrants, it was necessary to find a way to account for all of the types of occupational entry regulations and their variability.

Firstly, a literature search was conducted on the barriers to Immigrants coming to Canada, and on occupational regulation in Canada.

The next steps were followed to identify and categorize institutional or formal barriers:

- Information was synthesized for each of the occupations in Skill levels A and B and the type of regulation was recorded for each province and territory;
- Each occupation was assigned an overall rating (no barrier, partial barrier, or total barrier) based on the information gathered in the previous step;
- Each type of regulation (and non-regulation) was identified and listed according to the rating criteria;
- An excel spread sheet was developed which contains all of the information listed above for all skilled occupations (Skill levels A and B) from the NOC. Some of this information is contained in this report (See Appendix D);
- An analysis of all entry requirements was conducted on a sample of occupations to determine occupational benchmarks for a typology of regulations.

Main sources of information:

The National Occupational Classification (NOC) Career Handbook
The NOC Career Handbook was developed for career and employment counselors. The Career Handbook consists of two volumes and contains detailed information and requirements for all of the occupations in the NOC. Because the Career Handbook is not restricted by classification needs, occupations in the Handbook are allowed a finer level of specialization. For example, whereas the NOC has one category for 2161 Mathematicians, Statisticians and Actuaries, the Career Handbook treats each of them separately and gives a detailed profile for each including separate entry requirements.

Ellis Chart A Comparative Chart of Apprentice Training Programs
This book which information is also accessible by internet gives complete details for all occupations requiring apprenticeship training for all of the provinces and territories in Canada.

Work Destinations Web site
The information on the web site is sponsored by the Forum of Labour Market Ministers and is intended as a guide to work and relocation in Canada. Currently one can view specific occupational profiles, including details about eligibility to work, apprenticeship programs, recognition of qualifications obtained in the provinces, territories, or outside Canada, other requirements, and contact information with regard to certification and assessment.

The Canadian Information Centre for International Credentials (CICIC) Web site

Metropolis Web Sites

Web Sites of Regulatory bodies (See Appendix A)

3. Literature Review

Green and Green (1996) did an extensive summary of Canadian immigration policy over the years. It seems that whether the policy in operation selected immigrants with specific skills to fill in shortages or sought flexible workers with broad skills, the results were always the same. Among other findings, this paper highlights the fact that there have always been barriers to immigrants entering the Canadian labour force. Experts agree that immigrants over the years have had a difficult time gaining access to the work force.

For the most part research conducted on immigrants occupational experience focuses on earnings, education, and employment. Recent studies show some differences depending on country of origin, immigrant class, and education. Independent class usually fare better than refugees, skilled immigrants fare better than less skilled, and North American and European immigrants fare better than immigrants from such countries as Asia and Central America do. However in almost every study native-born Canadians generally fare better in the labour market than immigrants.

Considerable research indicates that even highly trained and therefore skilled immigrants have a problem accessing occupations for which they have been trained in their country of origin. There are many studies that indicate a gap between wages of immigrants and native-born Canadians. Overall foreign-trained immigrants earn less than native-born residents with the same level of education do.

Badets and Howatson-Leo (1999) found that immigrants who came to Canada in the 1990's experienced difficulties finding employment. In spite of high qualifications and language abilities (in both official languages), recent immigrants were less likely to be employed than native-born residents. Ninety two percent of native-born residents who were university educated had jobs compared to 73 percent of recent immigrants.

Also, Pendakur and Mata (1999) found that with a major market shift in the three largest CMA's, (1961, 1971, 1981, 1991) native-born Canadians moved from manufacturing to the service sector while immigrants with low levels of schooling replaced the native-born residents in these jobs. They found also that immigrants with low and moderate levels of schooling consistently had higher rates of self-employment than similar groups of Canadian-born males.

Reitz (2000) shows a downward employment trend for immigrants across Canada. His analysis suggests that these trends arise in part from the increasing importance of education in labour markets, and the broader emergence of a "knowledge economy". His analysis shows a progressive trend toward lower rates of labour force participation, and lower levels of earnings relative to the native-born population, both overall and for most specific origins groups. Reitz used census data of successive cohorts of immigrant men and women for 1981, 1986, 1991, and 1996. His study examined the impact of selected educational and labour market changes on successive cohorts of immigrants. His analysis found that increased native-born educational levels infringe upon the traditional immigrant education advantage, outpacing effects of increased immigrant

skill-selectivity; increased returns to education among native-born workers do not apply to immigrants; and that other institutional obstacles to immigrant success also exist.

Almost all of the literature on immigrants' experience in the Canadian labour market supports the effectiveness of formal barriers. However, most of the studies analyze the data using occupational information at a very general level. Only a few research studies give an indication of the effectiveness of regulation for specific occupations. These studies give no indication that immigrants are able to find work in any of the regulated occupations without acquiring the required certification. In many of the studies it would be difficult to determine whether the barriers were a result of institutional or other types of barriers.

There are almost no studies that would help to determine whether certain of the skilled occupations are more of a barrier to immigrants than other occupations. Reitz and Lum (2000) found that fundamental changes in education and labour market processes are undercutting some of the major advantages that in the past have contributed to employment success for immigrants. They show that immigrant cohorts have been far less successful than those in the past in obtaining jobs, particularly well-paying job.

Finally, Li (2000) using 1996 census data compared immigrant groups with native-born Canadians of the same gender and racial origin at four levels of CMAs defined by population size. The findings indicate that immigrants of the same gender and racial origin earned either the same or more than their native-born counterparts. However, when variations in human capital, experience, and other individual differences in work-related characteristics and immigrant experience are taken into account, along with differences in urban scale, immigrant population size and unemployment rate, all immigrant groups earned less than their native-born counterparts. The author goes on to suggest that many factors, including unequal opportunities, affect the earnings of immigrants and that the assumption of immigrants' inferior human capital content inferred from earning disparities is tenuous at best.

Li (2001) in a subsequent study conducted further analysis of the 1996 Census data. Li compared earnings for four groups: native-born Canadian degree holders; immigrant Canadian degree-holders; immigrant mixed education degree holders; and immigrant foreign degree holders. The findings indicate that immigrants' credentials carry a penalty compared to those of native-born Canadians. Among the conclusions, Li indicates that if foreign degrees were to be recognized as equivalent to Canadian degrees in the Canadian labour market, visible-minority women and men would tend to benefit the most in terms of reaching income parity with their native-born counterparts.

It would have been valuable to see which occupations were included in this study. Knowing the occupations for the four groups could have helped to determine whether there were any differences between credentials for regulated and non-regulated occupations.

The Ontario Ministry of Training, Colleges and Universities (Michelle Goldberg) is conducting a major study using information from the Landed Immigrant Database of Ontario (mostly Toronto). Preliminary results from this study show that on average, 61% of working age (18-64) immigrants have post-secondary education or trade certification and that 25% of these are highly skilled professionals and trades persons.

Extensive interviews of immigrants indicate that they have difficulty getting licensed and are unable to work in their chosen professions.

Some preliminary analysis on specific occupations (Nurses, Teachers, Accountants, and Engineers) indicates that five years after many of the immigrants arrived they were working in their "chosen" professions. Some of the tentative observations from this study are as follows:

1) A majority of immigrants whose intended occupation was Nurse ended up working in the nursing profession. It isn't ascertained whether they overcame the barriers (obtained certification) before being allowed work in the profession.

2) Some of the immigrants intended as Teachers ended up teaching. It is probable that they were teaching in private schools (where they do no require certification) and/or in ESL classes outside of the public school system.

3) Some immigrants whose intended profession was Accountant were working as accountants. Unless they obtained certification they were probably not working as Certified Accountants.

4) Approximately 70 % of all immigrants to Ontario specify Engineer or Engineering Technologist or Technician as their intended professions. A small percentage of them end up working in those professions.

NOTE: The above study is not yet finalized and cannot be quoted

Discussions with personnel from regulatory bodies of Nurses and Teachers indicate that under no circumstances does either body hire anyone without the specified credentials.

Boyd, M. and Thomas, D. (2000) used major field of study and labor force data from the 1996 Canadian census, to assess variations in the correspondence between training in engineering fields and employment patterns. Comparisons were made between Canadian born men age 30-54 and permanent residents who immigrated as children and those who immigrated at age 28 or later with respect to labor force participation, employment, occupational location and earnings. Permanent residents who immigrated as adults are assumed to be foreign trained. Compared to the Canadian born and to those immigrating as children, this group is the least likely to be in the labor force or employed. When employed, they are less likely to have either manager, engineering or technical occupations and are most likely to be employed in other occupations. The analysis shows that mismatch is strongest within the first few years of arriving in Canada. Men with engineering training who have been in Canada fifteen years or more have employment patterns and occupational profiles that closely correspond to those of their Canadian-born counterparts or those arriving as children.

NOTE: This comes from a study by Boyd and Thomas that is not yet published, nor finalized so cannot be quoted.

Thompson (2000) compares skill distributions of native-born residents and immigrants from different regions. Thompson uses data from the 1991 and 1996 censuses and

estimated logistic regressions reveal that where region of origin is found to have a significant influence on the likelihood of immigrants being employed in skilled occupations, the effect is negative relative to similarly endowed native-born residents. Thompson breaks down the sample by occupation and sorts them into four skill levels. An exploration of the raw data shows that both male and female immigrants from traditional source regions such as North America and Northern Europe are consistently represented in skilled occupations to a greater extent than are native-born residents. She found further that some immigrant groups from less traditional source regions such as Southern Europe, Southern Asia, East and South East Asia and Central America, Caribbean and Bermuda are consistently employed in skilled work to a lesser extent than native-born residents are.

It was not possible to identify individual (NOC) occupations from this study to determine whether specific occupations were regulated or not.

3.1 Occupational Standards

Occupational standards are a particular type of standard which focus on the specification and/or the proficiency of the work performed by someone in a particular occupation. They are benchmarks against which occupations and people in the occupations are measured. Occupational standards can cover all or part of an occupation and can be set for occupations, jobs or tasks. Standards can be set by employers, employees, unions, professional associations or governments.

Occupational standards can be used as a basis for assessing the knowledge, skills, and abilities of those people in or entering a profession or a trade, and who wish to become certified. Certification is the formal recognition that a worker has met a standard. If candidates meet the standards, they are deemed to be qualified and they obtain certification.

3.2 Certification

Certification is a formal way in which training and experience is recognized through the granting of a certificate. Employer associations, worker associations and other agencies establish certificates for those who meet specified occupational standards. The reasons for certifying vary according to the type of certification as follows:

- To protect public health, safety and security

  Governments, employers and workers ensure that the public is not as risk. Certification ensures that people providing services in specific occupational areas are qualified to do so in a manner that protects both the worker and the public.

- To ensure a trained and competent workforce

  Employers and employer associations have an interest in the availability of workers with the appropriate skills to meet their needs. Also, accreditation ensures that training programs meet standards specified by industry and professional associations.

- To reduce recruitment costs

  Certification as a standard serves as evidence that a skill exists, thereby simplifying selection decisions.

- To increase status and compensation of certified members[1]

3.3 Definitions

The following definitions are used in this paper:

Certification
Certification can be defined in terms of its end state: the issuance of a formal document attesting to a set of skills, knowledge and abilities and the work experience or the performance of the certificate holder.

For the purposes of this paper two types of certification will be used:

1. Licensure

Licensing provides the exclusive right to practice. It is based on a regulatory regime in which only persons holding a license are legally entitled to perform the licensed functions. Unlicensed persons, whatever their degree of competence, are in breach of the law if they attempt to perform any of these functions.[2]

Examples of occupations that operate this form of certification are doctors, engineers, lawyers, architects, pilots, aircraft maintenance engineers and motor vehicle mechanics.

2. Reserved Title

This certificate is based on a regulatory regime under which persons with the requisite qualifications are certified by a body or agency as possessing those qualifications. These certificates are a signal of their attainment of a particular level of competence.[2] An example of an occupation that has this form of certification is Accountants.

Reserved-title regulates the use of a title but does not give the certificate holders monopolistic rights in a labour market, as does licensure. Under the reserved title certificate system, other people may still be employed in these occupations but they may not use any of the reserved title adjectives.

Typically, reserved-title holders are also members of an association and have agreed to abide by a code of ethics in practicing their occupation.[2]

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1 *Occupational Standards and Certification*, January 1998, "The Basics Report 1 Prepared by Price Waterhouse for Employment and Immigration Canada"

2 Ministry of the Attorney General. *The Report of the Professional Organizations Committee Ontario*, 1980

3.4 Regulated and Non regulated occupations

3.4.1 Non regulated Occupations

When an occupation falls into the non-regulated category, recognition of qualifications is normally at the discretion of the employer. Employment is subject to demand and qualification requirements are set by individual employers. This means that there is usually no formal barrier to entry into that occupation.

Baker is a non-regulated trade. This means that neither a formal certificate nor a formal apprenticeship is required to practise the trade. However, trade certification is available on a voluntary basis, which means that employers may still request trade certification as a condition for employment. While this poses some restriction to entry, the occupation is mostly open.

Certified Management Accountants (C.M.A.) are not regulated but use a type of certification called reserved title. A reserved title, unlike a license, regulates the use of a title but does not give the certificate holder monopolistic rights. A reserved title certificate allows persons with the required qualifications to be certified by a body or agency. The certificate is evidence that the holder has attained the necessary competence for the particular occupation for which the certificate was issued. However, others who are qualified but who do not hold the certificate are able to work in the profession. While Certified Management Accountants and others in this category are not regulated, some employers may not hire workers who do not have the reserved title certificate.

The following is an excerpt from the CICIC web site for potential immigrants:

"For a non-regulated occupation, requirements for employment can vary from very specific to very general. You may be expected to demonstrate a certain level of skill and competence, to have completed a certain number of years of education, and even to have personal characteristics suitable for the job. Since these requirements are not regulated by provincial or territorial law, it is up to the employer to decide whether your qualifications earned outside Canada are equivalent to Canadian credentials required for the occupation. Because registration and certification may be available for certain non-regulated occupations, some employers will require, as a condition for employment, that applicants be registered or certified by the relevant professional association."

3.4.2 Regulated Occupations

About 20 per cent of Canadians work in regulated occupations.

When a profession is regulated in Canada it is illegal to practise the occupation or use the title without being registered as a full member in a provincial or national regulatory body. Regulatory bodies are responsible for setting the standards for entry into the profession and for registering those who meet established standards of qualifications and practice.

For example, the profession of architect is regulated in Canada. This means that, by law, no one can practise the profession of architect without a licence. It is illegal to practise the profession or use the title of architect without being licensed as a full member in a provincial or territorial regulatory body. Provincial and territorial regulatory bodies of architects are responsible for setting the standards for entry into the profession and for issuing licences to those who meet established standards of qualifications and practice. All of the occupations in this type of category are closed to anyone who doesn't have the specific qualifications and license.

Audiologists and speech therapists are regulated in some provinces and not in others. In those provinces where it is regulated, it is illegal to practise without being registered as a full member in the provincial regulatory body. Provincial regulatory bodies of audiologists and speech therapists are responsible for setting the standards for entry into the profession and for registering those who meet established standards of qualification and practice. Although all provinces require a master's degree for practising, other requirements may vary from one province to another. Frequently, employers may require certification with a professional association for certain occupations even in the provinces where the occupation is not regulated.

Carpenter is a trade that is regulated in some provinces, and not in others. Many trades, like carpenter, have been designated as Red Seal Trades. This means that a number of provinces and territories have jointly agreed on certification standards for the trade. Holders of a Red Seal Certificate in that occupation are normally exempt from further examination when moving between provinces and territories.

Designated Red Seal Trades cut across all types of regulated trade occupations and do not usually pose a barrier apart from the certification requirements of the trade. However, a Red Seal Certificate may be required by some employers as a condition of employment.

3.5 Knowledge and Experience as Barriers

There are some occupations that are not regulated but which would appear to have barriers of a different kind.

Police officers for example would probably have a barrier to entry in the form of specific knowledge and experience. Training in law enforcement is based on a thorough knowledge of local laws and enforcement practices and this knowledge and experience is not easily transferable from one jurisdiction to another. Other examples include insurance underwriters, court officers and justices of the peace, and most inspectors and testers.

Many regulated occupations such as physicians and lawyers acquire knowledge and experience during their internship or articling which are an integral part of the educational and certification requirements of those occupations.

There are many non-regulated occupations that also have knowledge and experience as an entry requirement and which therefore probably act as barriers. While there are no formal regulatory barriers to these occupations they may require knowledge and experience obtained as a trainee or in performing other occupations within a specific establishment or industry.

For example, most of the higher level occupations in the manufacturing and processing industries have a requirement for extensive experience in various lower level jobs. The only way to gain access to processing and manufacturing machine operating occupations is through upward mobility within an establishment and/or industry.

Occupations that have non-regulated experience and specific knowledge requirements have not been systematically identified for this paper because there is no supportive evidence in the literature. It would be necessary to do a more in depth examination of these occupations before determining the extent to which the knowledge/experience factor is a barrier.

3.6 Effectiveness of Barriers

Certain regulated occupations are more effectively regulated than others. For example, engineers have a professional registration requirement but in practice, employers hire non-accredited engineers. It is the same in practice for accountants (all three types) which also require accreditation. It is possible to work as an accountant without the stated accreditation. A trade that falls into this category is cabinetmakers.

On the other hand, there are occupations that have accreditation requirements and these are strictly adhered to. An example of this is the occupation of lawyer. A trade that falls into this category is electrician.

An extensive analysis of occupational entry requirements from a variety of sources has led to some general observations about the effectiveness of regulatory barriers.

Government sources, whether federal or provincial, specify the required regulations for occupations. However, they do not give precise information about regulation in practice. As well, the many professional occupational associations give very detailed information about their requirements for membership. They don't provide information on the effectiveness of their regulations. There were almost no sources that had information about the effectiveness of regulation in practice.

Of the main ways of regulating occupations, licensing and certification seem to be more effective than association membership. This is probably because licensed and certified occupations are generally regulated by government (either at a provincial or national level). Also, governments tend to regulate the occupations that require rigid standards, usually for public safety.

There are varying degrees of effectiveness within all types of regulation. Effectiveness of regulation seems also to vary with type of major occupational group. For example, there is more regulation in the medical field than regulation in any of the other major occupational groups. There are more regulated occupations in the medical field that have an absolute barrier (physicians, nurses, various medical technologists and technicians) compared to, for example, engineers, scientists, and technologists and technicians in natural and applied sciences. Further, whether an occupation in the medical field is regulated by certification or association membership doesn't seem to make a difference to

its level of effectiveness. This is probably because the medical field, for public safety reasons, requires a more rigorous standard. And there is almost no regulation in the fields of culture and recreation and very little regulation in the fields of sales and service.

One would expect that labour market conditions would have an effect on effectiveness of regulation. This seems not to be the case. According to officials from several professional associations, there is no difference in procedure with changing labour market conditions. The same rules of accreditation are followed at all times to ensure regulatory standards. It seems to be the case that the most effectively regulated occupations (those that are considered to have an absolute barrier) are less likely to bend their standards when there is a shortage of these workers. It follows that the more flexibility that is allowed with the practice of enforcing regulation allows for more flexibility when labour markets change.

3.7 Typology of Occupational Barriers

One of the objectives of this project was to attempt to categorize the barriers in a meaningful way. To accomplish this it was necessary to study a selected sample of regulated occupations to determine the different types of certification under which they are governed.

A thorough analysis was conducted on a selected sample of occupations from the NOC. This allowed for the documentation of all of the formal (institutional) barriers that exist for the skilled regulated occupations in Canada, the effectiveness of these barriers and a look at how they work in the labour market.

Included in this analysis is an examination of the types of entry requirements for each occupation, the extent of experience on the job (formal or not) that is required, and an examination of factors that cause regulations to differ from one occupation to the next within different jurisdictions.

Rationale: The sample of occupations was selected to represent:

- A selected sample of entry regulation types;
- All major occupational sectors from NOC skill levels A & B;
- Skill types;
- A range of industries.

An attempt was made to ensure that all of the possible variations regarding entry requirements are represented in the sample. Using skill levels A and B (skilled professions and trades) as a base, occupations were selected from each of the 9 skill type categories. This was done to ensure representation of major industries as well as a range of occupations within those industries and to represent a wide range of certification and experience.

Sample of Occupations for in depth analysis:

1111 Financial Auditors and Accountants
1226 Conference and Event Planners
2131 Civil Engineers
2161 Mathematicians, Statisticians and Actuaries
2162 Computer Systems Analysts
2251 Architectural Technologists and Technicians
3152 Nurses
3215 Medical Radiation Technologists
3222 Dental Hygienists and Dental Therapists
4121 University Professors
4141 Secondary School Teachers
4211 Community and Social Service Workers
5123 Journalists
7232 Tool and Die Makers
7251 Plumbers
7315 Aircraft Mechanics and Aircraft Inspectors
7342 Tailors, Dressmakers, Furriers and Milliners

After an analysis of the occupations in the sample was conducted (See Appendix A) it was concluded that it was not possible to develop a meaningful categorization scheme based on the various factors. However, a chart has been developed to illustrate how all of the factors interact with one another (see chart below). As well, tables were developed (See Appendix B) listing all of the NOC skilled occupations and grouping them by their regulation type and barrier.

Category	Type of Regulation		Barrier	Value
Regulated across the country	• Provincial license Or • Federal license Or • Provincial certification or registration	Mandatory	Absolute Barrier	0
Regulated in most or in highest populated provinces/territories	• Provincial license Or • Federal license And • Provincial certification or registration	Mandatory	Absolute Barrier	0
Regulated in some provinces/territories	• Provincial license Or • Provincial association	Mandatory	Partial Barrier	0.5
Regulated in some or all provinces/territories	• Provincial license And/or • Provincial certification	Voluntary	Partial Barrier	0.5
Non-regulated	• Education requirement only • No certification requirements	N/A	No Barrier	1
Non-regulated	• Association membership (reserved title)only	Not compulsory	No Barrier	1

This chart shows a summary of the factors considered in determining which occupations have barriers and the extent of the barrier's effectiveness.

	Type of Regulation	Barrier	Value
Mix of both regulated and non-regulated occupations in the same NOC group	• Occupation(s) with certification and/or • Association membership And • Occupation(s) with no certification requirements	Partial Barrier	0.5
This illustrates another category of a partial barrier. A partial barrier has been assigned to (heterogeneous) NOC 4-digit groups although the group may contain occupations that should have an absolute barrier.			

3.8 Descriptors for in depth analysis of occupations

Education/Training Indicators used in the NOC Career Handbook

Education/Training indicators incorporate both educational and training requirements. These indicators consist of eight education and training types and two factors. The two factors are added to the numerical ratings where applicable and represent those requirements for entry into the occupation that cannot be objectively measured.

Each occupation is given multiple ratings, when applicable, to indicate all possible educational/training paths. In an occupation where high school and another type of training are required, the rating for high school completion has been dropped because a high school education is not sufficient for entry into that occupation.

Note – To obtain the lowest entry requirement: if the NOC describes the education or training as "usually" required, then it is rated as if it is required. If it has been described as "may be" required, then it is rated as if it is not required. For all other cases, the education or training listed in the description has been rated as a possible option.

INDICATOR DESCRIPTION

1. No formal education or training requirements
   The occupation does not require formal education or training.

2. Some high school education and/or on-the-job training or experience.
   Some high school education is required, or on-the-job training and/or previous related experience alone is adequate. Some high school education may also be combined with on-the-job training or previous experience related to the occupation.

3. High School
   The completion of high school is required.

4. Course work, training, woodshops and/or experience related to the occupation
   Course work, training, woodshops and/or experience related to the occupation is required, usually on completion of high school. Course work refers to courses taken at special training institutes, colleges, universities and/or other training venues, but does not include the completion of a program.

5. Apprenticeship, specialized training, vocational school training
   The completion of an apprenticeship program, a specialized training program, such as hospital-based training for nurses, or a vocational school training program is required.

6. College, technical school (certificate, diploma)
   Completion of a program at a college or technical school is required. A program could lead to a certificate or diploma.

7. Undergraduate degree
   Completion of a university degree at the bachelor's level is required.

8 Post-graduate or professional degree
   Completion of a university degree at the master's or doctoral level is required. Professional degrees that require additional education beyond the bachelor's level, such as law, dentistry, pharmacy and veterinary medicine, are also included.

\+ Additional requirement beyond education and training
   This requirement could include extensive experience, demonstrated ability, creative ability, appointments, practicums and internship not included in other education and training descriptors. When this additional requirement is specified in the NOC, a "+" is attached to any or all numerical ratings for the occupation. The amount of experience required may vary according to industry and/or employer. Demonstrated ability may be shown through a portfolio of work or the completion of an examination. Creative ability is required for artists, performers and athletes. In the case where two or more of these factors are required for an occupation – for example, both extensive experience and demonstrated ability – only one "+" will appear. The accompanying narrative gives more specific details.

R Regulated requirement(s)
   Attached to the ratings to indicate that some regulated requirement exists for that group. Regulated requirements include licensing, certification and/or association membership. In the case where two or more regulate requirements exist, the accompanying narrative provides more specific detail.

In Depth Description of Entry Requirements of NOC Occupations for Typology of Institutional Barriers

1111 Financial Auditors and Accountants

Some examples of job titles in this group include:

Financial Auditor;

Internal Auditor;

Certified Management Accountant (C.M.A.);

Certified General Accountant (C.G.A.);

Chartered Accountant.

Employment Requirements

There are two main occupations in this group; auditors and accountants.

Further, there are three types of accountants; Certified Management Accountants (C.M.A.), Certified General Accountant (C.G.A.), and Chartered Accountants.

Accountants as well as auditors are regulated in all provinces and territories. However, regulation overall for accountants is only partially effective because in practice employers can employ uncertified accountants. Chartered accountants must be certified to sign off on official accounting documents. Auditors usually require licensing to perform most of the auditing functions and this license seems to be an effective barrier.

Although both occupations in this group are regulated in all provinces and territories overall the group is considered to have a **partial barrier** because the group has a mix of effective (Auditors) and partially effective (Accountants) barriers.

Specific Education/Training

Chartered Accountants

- Require a university degree and completion of a training program approved by the Institute of Chartered Accountants, and several years of on-the-job training, and accreditation by the Institute of Chartered Accountants.

Certified General Accountants and Certified Management Accountants

- Require completion of secondary school and usually require some post secondary education related to accounting and completion of a training program approved by the Society of Certified General Accountants or Society of Management Accountants and several years of on-the-job training and accreditation by the Certified General Accountants Association or the Society of Management Accountants.
- In Quebec, membership in the professional corporation for accountants is mandatory.

Auditors

- Require education, training and accreditation as indicated for chartered accountants, certified general accountants, or certified management accountants and some experience as an accountant.
- Auditors may require accreditation by the Institute of Internal Auditors.
- To act as trustee in bankruptcy proceedings, auditors must hold a license as a trustee in bankruptcy.
- Licensing by the provincial or territorial governing body is usually required for auditors practising public accounting.

Other occupations from the financial field that are in this category include:

1112 Financial and Investment Analysts
1113 Securities Agents, Investment Dealers and Traders

1226 Conference and Event Planners

Some examples of job titles in this group include:

Conference and Meeting Planner;

Convention Co-ordinator;

Festival Organizer;

Special Events Organizer;

Trade Show Planner.

Employment Requirements

The occupations in this group usually require a university degree or college diploma in business, tourism or hospitality administration is usually required for entry into this occupation. However, several years of experience in hospitality or tourism administration or in public relations may replace formal educational requirements.

The occupations in this group have no certification requirements. Because this group is not a regulated occupation it has no barrier to entry.

Examples of other business and financial occupations that are not regulated include:

1221 Administrative Officers
1225 Purchasing Agents and Officers
1223 Bookkeepers
1232 Loan officers
1241 Secretaries
1244 Court Reporters and Medical Transcriptionists

2131 Civil Engineer

Other examples of engineering specializations include:

Mechanical Engineers;

Chemical Engineers;

Industrial and Manufacturing Engineers;

Aerospace Engineers;

Computer Engineers.

Employment Requirements

Engineers require a university degree at the bachelor's level. Engineers of all specialization are regulated in all provinces and territories in Canada. In practise, employers employ persons without professional registration to work in engineering jobs. However, only a registered engineer can sign off on an engineering project.[3]

Engineers are regulated in all provinces and territories in Canada. While there is a required regulatory license for all professional engineers it is possible to work in the occupation without one. The occupation of engineer is therefore considered to have a **partial barrier** because regulation for the group is only partially effective.

Specific Education/Training for Civil Engineer

- A bachelor's degree in civil engineering or in an appropriate, related engineering discipline is required.
- Registration as a Professional Engineer (P.Eng.) by a provincial or territorial association of professional engineers is often required for employment and to practise as a civil engineer.
- Engineers are eligible for registration following graduation from an accredited educational program and after at least two years of work experience in engineering and, in some provinces, after passing a professional practice examination.
- In some provinces, those who are not graduates of an accredited educational program are eligible for registration after completing a six-to-eight year term of supervised employment and successfully passing examinations.
- In Quebec, membership in the professional corporation for engineers is mandatory.

2161 Mathematicians, Statisticians and Actuaries

Employment Requirements

As is obvious from the title, this group consists of three distinct occupations. Mathematicians and Statisticians usually require a graduate degree in their respective fields. Neither Mathematicians nor Statisticians are regulated. Actuaries require a university or college diploma. Further, Actuaries must be accredited after extensive experience in the actuarial field or cannot work as an actuary.

Because this group has a mix of regulated and non-regulated occupations it is considered to have a **partial barrier**.

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[3] Statistics from landing immigrant documents for Ontario show that from1994 to1999, Engineer was the intended profession of 50% of all immigrants. However, studies show that immigrants who come to Canada as engineers are not very successful in having their credentials recognized. One study showed that nearly half (44 percent) of the immigrants who came to Canada to work between 1991 and 1994 intending to work as a civil, mechanical, chemical or electrical engineer were not so employed in 1996.

Specific Education/Training for Actuaries

- Actuaries usually require an undergraduate degree or college diploma in mathematics, statistics or operations research to complete professional examinations successfully. Also required are three years of work experience in the actuarial field as an actuarial assistant or in a related position.

- Accreditation with the Canadian Institute of Actuaries is required.

Other mixed groups that include distinct occupations and that are considered to have a partial barrier include:

2113 Geologists, Geochemists and Geophysicists
1235 Assessors, Valuators and Appraisers
2225 Landscape and Horticulture Technicians and Specialists
2262 Engineering Inspectors and Regulatory Officers
3232 Midwives and Practitioners of Natural Healing
7383 Other Trades and Related Occupations

2162 Computer Systems Analysts

Some examples of job titles in this group include:

Applications Analyst – Computer Systems;

Business Systems Specialist;

Computer Consultant;

Computer Graphics Specialist;

Management Information Systems Analyst;

Project Manager – Computer Systems.

Employment Requirements

This is a very homogeneous group. Computer Systems Analysts require a bachelor's degree, usually in computer science, mathematics, commerce or business administration; or completion of a college program in computer science. Experience as a computer programmer is usually required. Specialization in commercial or engineering and scientific applications requires specific post-secondary study or experience. Experience is required for supervisory and senior positions.

Computer Systems Analysts are not a regulated occupation and therefore has **no barrier**.

Other occupations in Natural and Applied Sciences that have no regulatory barrier include:

2163 Computer programmers
2111 Physicists
2112 Chemists
2121 Biologists and Related Scientists
2252 Industrial Designers
2255 Mapping and Related Technologists and Technicians

2251 Architectural Technologists and Technicians

Employment Requirements

Architectural Technologists and Technicians usually require completion of a one-to-three year college program in architectural technology or a related subject.

Employers may require certification in architectural technology or in a related field through provincial associations of engineering/applied science technologists and technicians. A period of supervised work experience, usually two years, is required before certification.

Architectural Technologists and Technicians occupations are regulated. However, it is possible to work in the field without being certified.

Regulation governing most of the technologists and technicians occupations is not totally effective. Therefore, most of the technologists and technicians occupations including those in the engineering fields are considered to have a **partial barrier**.

Some other technologists and technicians that fall into this category include:

2221 Biological Technologists
2223 Forestry Technologists and Technicians
2232 Mechanical Engineering Technologists and technicians
2241 Electrical and Electronics Engineering Technologists and Technicians

3152 Nurses

Some examples of job titles in this group include:

Community Health Nurse;

Critical Care Nurse;

Registered Psychiatric Nurse.

Employment Requirements

There are six main types of registered nurses in this group. These are General Registered Nurses, Occupational Health Nurses, Public Health Nurses, Psychiatric nurses, Nursing Consultants, and Nursing researchers. Besides their academic requirements all of these registered nursing occupations require a provincial/territorial license or it is not possible to practice the profession. This means that the licensing regulations are effective.

Specific Education/Training for two of the registered nursing occupations

General Duty Registered Nurses

- Completion of a university, college or other approved registered nursing program is required.
- Additional academic training or experience is required to specialize in a specific area of nursing.

- A master's or doctorate degree in nursing is usually required for clinical nurse specialists, nurse clinicians, nursing consultants and nursing researchers.
- Licensure by a provincial or territorial governing body is required. In Quebec, membership in the professional corporation for nurses is mandatory.

Registered Psychiatric Nurses

- Completion of a college or other registered psychiatric nursing program is required.
- Licensure is required and available only in Manitoba, Saskatchewan, Alberta and British Columbia.

Nurses, as well as most of the regulated professions in health care have an **absolute barrier.** Other strictly regulated professional occupations in the medical field that fall into this category include:

3113 Dentists
3114 Veterinarians
3121 Optometrists
3131 Pharmacists
3142 Physiotherapists
3143 Occupational Therapists

3215 Medical Radiation Technologists

Some examples of job titles in this group include:

Mammography Technician;

Radiography Technologist;

X-Ray Technician;

Nuclear Medicine Technologist;

Radiation Therapist;

Radiotherapy Technician.

Employment Requirements

There are three main occupations in this group. These are Radiography Technologists, Nuclear Medicine Technologists, and Radiation Therapists. Medical Radiation Technologists are regulated in some provinces but not in others. It is possible, therefore to practise this profession in parts of Canada without the required certification.

Because it is possible to work as for some employers in Canada without the required certification regulation is only partially effective for Medical Radiation Technologists. This occupation is therefore considered to have a **partial barrier**.

Specific Education/Training

- Completion of a two-to-three year college, hospital school or other approved program in diagnostic radiotherapy (for radiography technologists), nuclear medicine technology (for nuclear medicine technologists) or radiation therapy (for radiation therapists) and a period of supervised practical training are required.
- Medical Radiation technologists require registration with the Canadian Association of Medical Radiation Technologists, a provincial counterpart or an appropriate provincial governing body.
- In Quebec, membership in the professional corporation for radiology technicians is mandatory.
- Experience as a medical radiation technologist is required for supervisors and instructors.

Other medical technologist and technician occupations that have a partial barrier include:

3211 Medical Laboratory Technologists and Pathologists' Assistants
3213 Animal Health Technologists
3214 Respiratory Therapists and Clinical Profusionists
3215 Cardiology Technologists
3222 Dental Technicians

3222 Dental Hygienists and Dental Therapists

Employment Requirements

There are two occupations in this group and both have license requirements. Both Dental Hygienists and Dental Therapists are regulated in all provinces and territories in Canada and it is not possible to practise either profession without the required certification. The mandatory certification for this occupation is considered to be an absolute barrier.

Specific Education/Training

Dental Hygienists

- Dental Hygienists are required to complete a college program ranging from one to three years, or other approved program in dental hygiene recognized by the governing board within the province of territory of residence.
- Licensure by the appropriate provincial or territorial governing body is required. In Quebec, membership in the professional corporation for dental hygienists is mandatory.

Dental Therapists

- Dental Therapists are required to complete the dental therapy program offered by Health Canada or an approved college program in dental therapy.
- Licensure is required for dental therapists in Saskatchewan and Manitoba.

Other medical technologist and technician occupations that have an absolute barrier because of effective regulation include:

3216 Medical Sonographers
3217 Electroencephalographic and Other Diagnostic Technologists
3221 Denturists
3231 Opticians

4121 University Professors

Some examples of job titles in this group include:

Professor of Computer Sciences;

University Instructor, Engineering Assistant Professor, Botany;

Chairperson, Physics Department;

Department Head, Geography;

Lecturer, University.

Employment Requirements

There is a wide range of teaching researching specializations as well as a range of levels within these university occupations as can be seen from the example titles above. The main requirement for the occupations in this group is academic qualifications. A doctoral degree in the field of specialization is required. Experience is an additional requirement for the jobs of Chairpersons of Departments and Department Heads.

There are no certification requirements for most teaching jobs. However, licenses or professional accreditation may be required for professors teaching future practitioners in certain professionally regulated fields such as medicine, engineering, architecture, psychology or law.

Teaching at the university level is considered to be mostly open and therefore has **no barrier**.

Other occupations in social science, education, and natural and applied sciences that do not have licensing requirements include:

4131 College and Other Vocational Instructors
4169 Other professional Occupations in Social Science (which includes Anthropologists, Geographers, Linguists, Political Scientists, and Sociologists)
2111Physicists and Astronomers
2112 Chemists
2121 Biologists and Related Scientists

4141 Secondary School Teachers

Some examples of job titles in this group include:

Adult Education Teacher;

Biology Teacher, High School;

Department Head, Secondary School;

ESL Teacher, High School;

High School Teacher, Special Education;

Vocational Teacher, High School.

Summary of Employment Requirements

Teachers of academic subjects require a bachelor's degree in education that is usually preceded by a bachelor's degree in the arts or sciences. Teachers of vocational or technical subjects require a bachelor's degree in education which is usually preceded by several years of training or experience in the subject. Additional training is required to specialize in special education or English or French as a second language. Department heads require several years of teaching experience.

Secondary School Teaching occupations are regulated and it is not possible to enter the profession to teach in the public school system without a provincial license. A provincial teaching certificate is required. In some cases it is possible to teach in private schools without certification but teaching in public high schools, elementary schools or kindergarten is regulated and is therefore considered to have an **absolute barrier**.

Other occupations in education and social science that have an absolute barrier include:

4142 Elementary School and Kindergarten Teachers
4143 School and Guidance Counsellors
4151 Psychologists
4112 Lawyers and Notaries

4212 Community and Social Service Workers

Some examples of job titles in this group include:

Addictions Worker;

Community Development Worker;

Crises Intervention Worker;

Family Service Worker;

Group Home Worker;

Life Skills Instructor;

Outreach Worker;

Rehabilitation Worker;

Youth Worker.

Employment Requirements

This is a very diverse group of occupations and they vary considerably from one to the other. Community and Social Service Workers have academic and/or experience requirements but are not regulated.

Many of these occupations usually require completion of a college or university program in social work, counseling or another social science discipline.

However, previous work experience in a social service environment as a volunteer or in a support capacity may replace formal educational requirements for some occupations in this group.

Because none of these occupations are regulated they have **no barrier**.

Other occupations in social science, social services and education that are considered not to have barriers include:

4213 Employment Counsellors
4214 Early Childhood Educators
4160 – 4167 Policy and Program Officers, Researchers and Consultants (except government)

5123 Journalists

Some examples of job titles in this group include:

Book Reviewer;

Broadcast Journalist;

Columnist;

Investigative Reporter;

News Analyst;

Researcher, Radio or Television.

Employment Requirements

This group consists of a variety of types of journalism occupations. The requirements range by function and type of media. However, they all generally require a university degree or college diploma in journalism or a related field. These occupations are not regulated and therefore have **no barrier.**

None of the occupations in Art, Culture, Recreation and Sport (except for Interior Designer) require certification. None of these occupations have a barrier.

This includes such occupations as:

5111 Librarians (not in the public school system)
5125 Translators, Terminologists, and Interpreters
5133 Musicians and Singers

5136 Painters, Sculptors and Other Visual Artists
5221 Photographers
5241 Graphic Designers and Illustrating Artists
5251 Athletes

7232 Tool and Die Makers

Some examples of job titles in this group include:

Die Finisher;

Die Maker;

Metal Mould Maker;

Metal Patternmaker.

Employment Requirements

This group consists of tool and die makers as well as patternmakers and metal mould makers. These are apprenticeable trades and are regulated. However, there is no mandatory certification in any of the provinces or territories for these trades. Certification for tool and die making occupations is available but voluntary in nine provinces. This means that some but not all employers across Canada will require certification.

Because the trade is not effectively regulated it is considered to have a partial barrier.

Specific Education/Training

Tool and Die Makers

- Completion of a four year tool and die making apprenticeship program or a combination of over five years of work experience in the trade and some high school, college or industry courses in tool and die making is usually required to be eligible for trade certification.
- Interprovincial trade certification (Red Seal) is available to qualified tool and die makers.

Mould Makers and Patternmakers have more specific requirements as follows:

- Mould makers and Patternmakers may require completion of an apprenticeship or a college program in patternmaking.
- Trade certification for mould making and for patternmaking is available but not compulsory in Ontario.

Other trades that are also not effectively regulated include:

7271 Carpenters
7272 Cabinet Makers
7281 Bricklayers
7292 Glaziers
7294 Painters and Decorators
7312 Heavy-Duty Equipment Mechanics

7251 Plumbers

Employment Requirements

The requirements for this occupation include either completion of a four-to-five year apprenticeship program or a combination of over five years of work experience in the trade and some high school, college or industry courses in plumbing.

Plumbing is an effectively regulated occupation with certification compulsory in eight provinces and available but voluntary in two provinces and the territories. There is an **absolute barrier** to this occupation as it is impossible to practice the trade of plumbing without the required provincial certification.

The above requirements must be completed before being eligible for trade certification. Trade certification is compulsory in Nova Scotia, Prince Edward Island, New Brunswick, Quebec, Ontario, Saskatchewan, Alberta and British Columbia and available but voluntary in Newfoundland, Manitoba, Nunavut, and the Yukon. Interprovincial trade certification (Red Seal) is available to qualified plumbers.

Other trades that are effectively regulated include:

7241 Electrician
7321 Motor Vehicle Mechanics, Technicians and Mechanical Repairers
7261 Sheet Metal Workers
7371 Crane Operators

7315 Aircraft Mechanics and Aircraft Inspectors

Some examples of job titles in this group include:

Aircraft Maintenance Engineer;

Aircraft Mechanic, Engine Overhaul;

Hydraulics Mechanic;

Inspector, Flight Test;

Inspector, Repair and Overhaul;

Shop Inspector, Aircraft Repair.

Employment Requirements

There are two main occupations in this group both of which require a license. Aircraft Mechanics and Aircraft Inspectors are regulated by the federal government. These occupations require training on the job and extensive experience before a license is issued.

In order to enter either occupation it is necessary to hold a license issued by the federal government. Because of the licensing requirement both of these occupations have an **absolute barrier**.

Specific Education/Training

Aircraft Mechanics

- A college diploma in aircraft maintenance is usually required.
- Several years of on-the-job training are required for aircraft mechanics.
- Aircraft mechanics who sign maintenance releases require an Aircraft Maintenance Engineer's (AME) license issued by Transport Canada.

Aircraft Inspectors

- Aircraft Inspectors require several years of experience as an aircraft mechanic.
- Aircraft Inspectors require an Aircraft Maintenance Engineer's (AME) licence with endorsements for specific aircraft types and systems.

Many occupations in the transportation industry are regulated by the federal government and are therefore regulated for public safety reasons. Some of these include:

2244 Aircraft Instrument, Electrical and Avionics Mechanics, Technicians and Inspectors
2271 Air Pilots, Flight Engineers and Flying Instructors
2272 Air Traffic Control Occupations
2273 Deck Officers, Water Transport

7342 Tailors, Dressmakers, Furriers and Milliners

Some examples of job titles included in this group include:

Dressmaker;

Furrier;

Seamstress;

Milliner;

Tailor.

Employment Requirements

This is a wide range of occupations with varying types of expertise. The occupations in this group require some high school education and/or on-the-job training or experience. Other requirements include course work, training, workshops and/or experience related to the occupation.

None of these occupations is regulated. This occupational group therefore has no barrier.

Specific Education/Training

- Tailors and dressmakers require demonstrated ability to sew, style and fit men's or women's garments and may require completion of college or other courses in tailoring or dressmaking.
- Furriers require several years of experience in selecting pelts and making, fitting, styling and altering fur garments and accessories.
- Milliners require demonstrated ability to sew, style and fit hats and caps.
- Seamstresses require demonstrated ability to sew, alter, and repair garments.

Examples of other trades that have no certification requirements include:

7266 Blacksmiths and Die Setters
7341 Upholsterers
7343 Shoe Repairers and Shoemakers
7344 Jewellers, Watch Repairers and Related Occupations
7382 Commercial Divers
8231 Underground Production and Development Miners

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Appendix A

Professional Regulatory Bodies Web Sites (some of those in Ontario are included):

Agrologist:	Freespace.net
Architect:	oaa.on.ca
Audiologist and Speech Pathologist:	caslpo.com
Certified General Accountant:	cga-ontario.org
Certified Management Accountant	cma-ontario.org
Chartered Accountant	rjwa.on.ca/cco
Chiropractor	cco.on.ca
Dental Hygienist	cdho.org
Engineer	peo.on.ca
Engineering Technician and Technologist	oacett.org
Insurance Broker	aribo.com
Land Surveyor	interlog.com
Lawyer	isuc.on.ca
Massage Therapist	cmto.com
Medical Laboratory Technologist	cmlto.com
Medical Radiation Technologist	cmrto.org
Nurse	cno.org
Occupational Therapist	coto.org
Physiotherapist	collegept.org
Pharmacist	ocpharma.com
Physicians and Surgeons	cpso.on.ca
Psychologist	cpo.on.ca
Respiratory Therapist	crto.on.ca
Teacher	oct.on.ca
Veterinarian	cvo.org

Appendix B: Questions and Answers

What are occupational barriers?

Occupations have barriers when the entry conditions do not allow access to anyone not meeting the requirements. Entry requirements consist of several types of qualifications that have been determined as indicators for successful performance in an occupation. Some of these requirements are easy to determine from official references and are easily identifiable. These include level of education and certification. Other entry requirements that are not so easily identifiable include a variety of factors such as knowledge, skills, experience and personal suitability.

It is the entry requirements of regulated occupations (those occupations that are certified) that make up (formal) barriers. In regulated occupations the essential entry requirement is a license, a certificate or membership of an association. Where there is legislation such as certification or licensing governing occupations these occupations have rigid entry requirements. This means that one is required to obtain the determined credentials before being hired for these occupations. It also means that these credentials form a barrier to anyone not having these credentials.

There are some regulated occupations that are not strictly regulated. These entry requirements though regulated are flexible in that some employers require the credentials before hiring and others do not. Very often one is allowed to work for a time before applying for the necessary credentials such as association membership.

What is a regulated occupation?

A regulated occupation is one that is controlled by provincial and territorial (and sometimes federal) law and governed by a professional organization or regulatory body. The regulatory body governing the profession/trade has the authority to set entry requirements and standards of practice, to assess applicants' qualifications and credentials, to certify, register, or license qualified applicants, and to discipline members of the profession/trade. Some occupations are regulated in certain provinces and territories and are not regulated in others.

When a profession is regulated in Canada it is illegal to practise the occupation or use the title without being registered as a full member in a provincial or national regulatory body. Regulatory bodies are responsible for setting the standards for entry into the profession and for registering those who meet established standards of qualifications and practice.

For example, the profession of architect is regulated in Canada. This means that, by law, no one can practise the profession of architect without a licence. It is illegal to practise the profession or use the title of architect without being licensed as a full member in a provincial or territorial regulatory body. Provincial and territorial regulatory bodies of architects are responsible for setting the standards for entry into the profession and for issuing licences to those who meet established standards of qualifications and practice. All of the occupations in this type of category are closed to anyone who doesn't have the specific qualifications and license.

About 20 per cent of Canadians work in regulated occupations.

What is a non-regulated occupation?

A non-regulated occupation is a profession/trade for which there is no legal requirement or restriction on practice with regard to licences, certificates, or registration. For some non-regulated occupations, certification/registration with a professional body is available to applicants on a voluntary basis, whereas for other non-regulated occupations there is no certification/registration available at all.

When an occupation falls into the non-regulated category, recognition of qualifications is normally at the discretion of the employer. With non regulated occupations employment is subject to demand and qualification requirements are set by individual employers. This means that there is usually no formal barrier to entry into those occupations.

The vast majority of occupations in Canada fall into this category.

Baker is a non-regulated trade. This means that neither a formal certificate nor a formal apprenticeship is required to practise the trade. However, trade certification is available on a voluntary basis, which means that employers may still request trade certification as a condition for employment. While this poses some restriction to entry the occupation is mostly open.

How are barriers specified?

Certification can be defined in terms of its end state: the issuance of a formal document attesting to a set of skills, knowledge and abilities and the work experience or the performance of the certificate holder.

Licensure
Licensing provides the exclusive right to practice. It is based on a regulatory regime in which only persons holding a license are legally entitled to perform the licensed functions. Unlicensed persons, whatever their degree of competence, are in breach of the law if they attempt to perform any of these functions.

Examples of occupations that operate this form of certification are doctors, engineers, lawyers, architects, pilots, aircraft maintenance engineers and motor vehicle mechanics.

Reserved Title
This certificate is based on a regulatory regime under which persons with the requisite qualifications are certified by a body or agency as possessing those qualifications. These certificates are a signal of their attainment of a particular level of competence. An example of an occupation that has this form of certification is Accountants.

Reserved-title regulates the use of a title but does not give the certificate holders monopolistic rights in a labour market, as does licensure. Under the reserved title certificate system, other people may still be employed in these occupations but they may not use any of the reserved title adjectives.

Typically, reserved-title holders are also members of an association and have agreed to abide by a code of ethics in practicing their occupation.

Certified Management Accountants (C.M.A.) are not regulated but use a reserved title. This reserved title, unlike a license, regulates the use of a title but does not give the certificate holder monopolistic rights. A reserved title certificate allows persons with the required qualifications to be certified by a body or agency. The certificate is evidence that the holder has attained the necessary competence for this particular occupation. However, others who are qualified but who do not hold the certificate are able to work in the profession. While Certified Management Accountants and others in this category are not regulated some employers may not hire workers who do not have the reserved title certificate.

What is the relationship of occupational standards to occupational barriers?

Occupational standards focus on the specification and/or the proficiency of the work performed by someone in a particular occupation. They are benchmarks against which occupations and people in the occupations are measured.

Occupational standards are used as a basis for assessing the knowledge, skills, and abilities of those people in or entering a profession or a trade, and who wish to become certified. Certification is the formal recognition that a worker has met a standard. If candidates meet the standards, they are deemed to be qualified and they obtain certification.

Insofar as a standard is effectively regulated, it forms an occupational barrier.

What are the implications of barriers?

For occupations where regulations are effectively enforced (absolute barriers) the implication is that no one can be hired for the job that does not have the qualifications. For those occupations that are not effectively regulated, the implication is those who do not have the qualifications may or may not be hired for that occupation. It depends on the employer and/or labour market conditions.

How are barriers applied in practice?

When a profession is regulated in Canada it is illegal to practise the occupation or use the title without being registered as a full member in a provincial or national regulatory body. Regulatory bodies are responsible for setting the standards for entry into the profession and for registering those who meet established standards of qualifications and practice.

Are all barriers effective?

Some occupations are regulated more effectively than others. For example, engineers have a professional registration requirement but in practice, employers hire non-accredited engineers. It is the same in practice for those accountants that require accreditation. It is possible to work as an accountant without the stated accreditation. A trade that falls into this category is cabinetmakers.

On the other hand, there are occupations that have accreditation requirements that are strictly adhered to. An example of this is the occupation of lawyer. A trade that falls into this category is electrician.

An extensive analysis of occupational entry requirements from a variety of sources has led to some general observations about the effectiveness of regulatory barriers.

Government sources, whether federal or provincial, specify the required regulations for occupations. However, they do not always give precise information about regulation in practice. As well, the many professional occupational associations give very detailed information about their requirements for membership. They don't provide information on what goes on in applying (the effectiveness of) their regulations. There were almost no sources that had information about the effectiveness of regulation in practice.

Only a few research studies gave an indication of the effectiveness of regulation for certain occupations. In all studies it would be difficult to determine whether these regulations were a function of institutional (formal) barriers or another type of barrier.

There are several ways that occupational regulation takes the form of institutional barriers. The primary ways are through licensing, certification and association membership. The detailed matrix illustrates the type of regulation(s) by jurisdiction for all skilled occupations.

Overall, licensing and certification seem to be more effective than association membership. This is because these occupations are regulated by a government (either at a provincial or national level). Also, governments tend to regulate the occupations that require rigid standards for public safety.

There are varying degrees of effectiveness within all types of regulation. Effectiveness of regulation seems also to vary with type of major occupational group. For example, there is more regulation in the medical field than regulation in any of the other major occupational groups. There are more regulated occupations in the medical field that have an absolute barrier (physicians, nurses, various medical technologists and technicians) compared to, for example, engineers, scientists, and technologists and technicians in natural and applied sciences. Further, whether an occupation in the medical field is regulated by certification or association membership doesn't seem to make a difference to its level of effectiveness. This is probably because the medical field, for public safety reasons, requires a more rigorous standard. And there is almost no regulation in the fields of culture and recreation and very little regulation in the fields of sales and service.

Are barriers applied differently in different labour market conditions?

One would expect that labour market conditions would have an effect on the effectiveness of regulation. This seems not to be the case. According to officials from several professional associations, there is no difference in procedure with changing labour market conditions. The same rules of accreditation are followed at all times to ensure regulatory standards. It seems to be the case that the most effectively regulated occupations (those that are considered to have an absolute barrier) are less likely to bend their standards when there is a shortage of these workers. It follows that the more flexibility that is allowed with the practice of enforcing regulation would allow for the same or more flexibility when labour markets change.

Is there employer flexibility in applying barriers?

Occupations that are strictly regulated do not allow employers any flexibility in hiring. Employers are bound to hire only those persons who hold the required certification. It follows that regulated occupations that are not strictly enforced allow employers more flexibility in hiring.

Appendix C

NOC Major Group	Occupations	Requirements	Barrier
11 Business, Finance and Administration	1111 Financial Auditors and Accountants 1112 Financial and Investment Analysts 1113 Securities Agents, Investment Dealers and Traders	Certification & Association Membership	Partial Barrier
	1114 Other Financial Officers 1122 Professional Occupations in Business Services to Management 1233 Insurance Adjusters and Claims Examiners 1234 Insurance Underwriters	Association Membership License and Specific Experience	
	1121 Specialists in Human Resources 1221 Administrative Officers 1222 Executive Assistants 1223 Personnel and Recruitment Officers 1225 Purchasing Agents and Officers 1226 Conference and Event Planners 1231 Bookkeepers 1232 Loan officers 1241 Secretaries 1242 Legal Secretaries 1243 Medical Secretaries	No regulation	Open
	1228 Immigration, Unemployment Insurance and Revenue Officers*	-Canadian Citizenship given preference -Specific Experience	Absolute Barrier
21 Natural and Applied Sciences	2111 Physicists and Astronomers 2112 Chemists 2114 Meteorologists 2122 Biologists and Related Scientists 2162 Computer Systems Analysts 2163 Computer Programmers 2252 Industrial Designers 2255 Mapping and Related Technologists and Technicians	None	Open
	2244 Aircraft Instrument, Electrical and Avionics Mechanics, Technicians and Inspectors 2271 Air Pilots, Flight Engineers and Flying Instructors 2272 Air Traffic Controllers 2273 Deck Officers, Water Transport 2274 Engineer Officers, Water Transport	Federal License	Absolute Barrier

NOC Major Group	Occupations	Requirements	Barrier
(continued) 21 Natural and Applied Sciences	2113 Geologists, Geochemists and Geophysicists 2123 Forestry Professionals 2124 Agricultural Representatives, Consultants and Specialists 2131 – 2147 Engineers 2151 Architects 2152 Landscape Architects 2153 Urban and Land Use Planners 2154 Land Surveyors 2211 Applied Chemical Technologists and Technicians 2212 Geological and Mineral Technologists and Technicians 2221 Biological Technologists 2223 Forestry Technologists and Technicians 2230 Civil Engineering Technologists and Technicians 2232 Mechanical Engineering Technologists and technicians 2241 Electrical and Electronics Engineering Technologists and Technicians 2251 Architectural Technologists and Technicians 2253 Drafting Technologists and Technicians 2254 Survey Technologists and Technicians	Varied: Certification and Association Membership	Partial Barrier
	2213 Meteorological Technicians 2224 Conservation and Fishery Officers 2242 Electronic Service Technicians (Household and Business Equipment) 2243 Industrial Instrument Technicians and Mechanics	Varied: No entry; Experience; apprenticeship requirements	
31 Professional Occupations in Health	3111 Specialists Physicians 3112 Physicians and Surgeons 3113 Dentists 3114 Veterinarians 3121 Optometrists 3122 Chiropractors 3131 Pharmacists 3142 Physiotherapists 3143 Occupational Therapists 3151 Head Nurses and Supervisors 3152 Registered Nurses 3216 Medical Sonographers 3218 Electroencephalographic and other Diagnostic Technologies nec 3221 Denturists 3222 Dental Hygienists and Dental Therapists 3231 Opticians 3233 Registered Nursing Assistants	Certification and Association Membership	Absolute Barrier

NOC Major Group	Occupations	Requirements	Barrier
(continued) 31 Professional Occupations in Health	3132 Dieticians and Nutritionists 3141 Audiologists and Speech Language Pathologists 3211 Medical Laboratory Technologists and Pathologists' Assistants 3213 Animal Health Technologists 3214 Respiratory Therapists and Clinical Profusionists 3215 Medical Radiation Technologists 3217 Cardiology Technologists 3234 Ambulance Attendants and other Paramedical Occupations	Certification or Registration	Partial Barrier
	3212 Medical Laboratory Technicians	None	Open
41 Social Science, Education, Government Services and Religion	4112 Lawyers and Quebec Notaries 4141 Secondary School Teachers 4142 Elementary School Teachers 4143 School and Guidance Counsellors 4151 Psychologists 4163 Economic Development Officers and Marketing Researchers and Consultants* 4168 Program Officers Unique to Government	-License & Certification -Specific Experience - Canadian Citizenship Preferred	Absolute Barrier
	4152 Social Workers 4155 Probation and Parole Officers and Related Occupations 4215 Instructors and Teachers of Disabled Persons	Varied: Certification & Association Membership	Partial Barrier
	4153 Family, Marriage and Other related Counsellors 4154 Ministers of Religion 4162 Economists and Economic Policy Researchers and Analysts 4166 Education Policy Researchers, Consultants and Program Officers 4167 Recreation and Sports Program Supervisors and Consultants 4212 Community and Social Service Workers 4213 Employment Counsellors	Mainly academic Not regulated	Open

NOC Major Group	Occupations	Requirements	Barrier
51 Art, Culture, Recreation and Sport *	5111-5113 Librarians, Archivists, Conservators and Curators 5121-5125 Writing, Translating, and Public Relations Professionals 5131-5136 Creative and Performing Artists 5211 Library and Archive Technicians and assistants 5221-5227 Photographers, Graphic Arts technicians and Technical Occupations in Motion Pictures, Broadcasting and Performing Arts 5231 Announcers and other Broadcasters 5241 Graphic Designers and Illustrating Artists 5243 Theatre, Fashion, Exhibit and Other Creative Designers 5245 Patternmakers – Textile, Leather and Fur Products	None	Open
*No occupation in this NOC group has an absolute barrier	5242 Interior Designers*	Association Membership	Partial Barrier
62 Sales and Service	6231 Insurance Agents and Brokers 6232 Real Estate Agents and Salespersons 6233 Retail and Wholesale Buyers 6251 Butcher and Meat Cutters, Retail and Wholesale 6261 Police Officers (Except Commissioned) 6262 Firefighters	None	Open
	6241 Chefs and Cooks 6252 Bakers 6271 Hairstylists and Barbers 6272 Funeral Directors and Embalmers	Varied: Mainly Apprenticeship and Voluntary Certification	Partial Barrier
72-73 Trades and Skilled Transport and Equipment Operators	7247 Cable Television Service and Maintenance Technicians 7266 Blacksmiths and Die Setters 7341 Upholsterers 7342 Tailors, Dressmakers, Furriers and Milliners 7343 Shoe Repairers and Shoemakers 7372 Drillers and Blasters –Surface Mining, Quarrying and Construction 7373 Water Well Drillers 7382 Commercial Divers	None	Open
	7241 Electricians (Except Industrial and Power System) 7251 Plumbers 7252 Steamfitters, Pipefitters and Sprinkle System Installers 7261 Sheet Metal Workers 7313 Refrigeration and Air Conditioning Mechanics 7315 Aircraft Mechanics and Aircraft Inspectors 7321 Motor Vehicle Mechanics, Technicians, and Mechanical Repairers 7371 Crane Operators	Apprenticeship and Mandatory Certification	Absolute Barrier

NOC Major Group	Occupations	Requirements	Barrier
72-73 trades and Skilled Transport and Equipment Operators	7231 Machinists and Machining and Tooling Inspectors 7232 Tool and Die Maker 7242 Industrial Electricians 7243 Power System Electricians 7244 Electrical Power Line and Cable Workers 7245 Telecommunications Line and Cable Workers 7246 Telecommunications Installation and Repair Workers 7253 Gas Fitters 7262 Boilermakers 7263 Structural Metal and Platework Fabricators and Fitters 7264 Ironworkers 7271 Carpenters 7272 Cabinetmakers 7281-7284 Masonry and Plastering Trades 7291 Roofers and Shinglers 7292 Glaziers 7293 Insulators 7294 Painters and Decorators 7295 Floor Covering Installers 7311 Construction Millwrights and Industrial Mechanics 7312 Heavy Duty Equipment Mechanics 7316 Machine Fitters 7317 Textile Machinery Mechanics and Repairers 7318 Elevator Construction Mechanics 7322 Motor vehicle body repairers 7331-7335 Other Mechanics (e.g. Small Engines, Small Appliances) 7351-7352 Stationary Engineers & Power Station & System Operators 7381 Printing Press Operators	Regulation is varied for all groups: Some Apprenticeship Voluntary Certification	Partial Barrier
82 Primary Industry	8241 Logging Machinery Operators	Some (varied) certification	Partial Barrier
	8261 Fishing Masters and Officers 8262 Fishing Vessel Skippers and Fishermen/women	Varied certification and licenses	Barrier

Appendix D

The following tables show the information from the excel matrix showing the entry requirements for Skilled NOC Occupations (Skill levels A and B) for each province/territory

KEY

l	provincial license
f	federal license
c	certification, compulsory
v	voluntary certification
a	association membership + m for mandatory
p	provincial registration
o	not regulated
*	mix of regulations

NOC Occupations	YK	BC	NU	AB	SK	MB	ON	QC	NB	NS	PEI	NF	Barrier
11 Business and Finance													
*1111 Financial auditors and accountants	al*	al*	al*	al*	al*	al*	al*	al*	al*	al*	al*	al*	Partial Barrier
*1112 Financial and investment analysts	a	a	a	a	a	a	a	a	a	a	a	a	Partial Barrier
1113 Securities agents, investment dealers and traders	al	al	al	al	al	al	al	al	al	al	al	al	Partial Barrier
1114 other Financial Officers	a*	a*	a*	a*	a*	a*	a*	a*	a*	a*	a*	a*	Partial Barrier
1121 Specialists in human resources	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
1122 Professional occupations in business services to management	a*	a*	a*	a*	a*	a*	a*	a*	a*	a*	a*	a*	Partial Barrier
12 Administrative and Business													
1221 Administrative Officers	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
1222 Executive assistants	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
1223 Personnel and recruitment officers	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
1225 Purchasing agents and officers	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
1226 Conference and event planners	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
1228 Immigration, unemployment insurance and revenue officers	o	o	o	o	o	o	o	o	o	o	o	o	Barrier
1231 Bookkeepers	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
1232 Loan officers	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
1233 Insurance adjusters and claims examiners	o	o	o	o	o	o	o	o	o	o	o	o	Partial Barrier
1234 Insurance underwriters	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
1241 Secretaries (except legal and medical)	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
1242 Legal secretaries	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
1243 Medical secretaries	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
21 Natural and Applied Sciences													
*2111 Physicists and astronomers	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
2112 Chemists	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
2113 Geologists, geochemists and geophysicists	o	a*	a*	a*	o	o	o	o	o	o	o	a*	Partial Barrier
2114 Meteorologists	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
*2121 Biologists and related scientists	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
*2122 Forestry professionals	a	a	a	a	a	a	a	am	a	a	a	a	Partial Barrier
*2123 Agricultural representatives, consultants and specialists	a	a	a	a	a	a	a	a	a	a	a	a	Partial Barrier
*2131 Civil engineers	a	a	a	a	a	a	a	a	a	a	a	a	Partial Barrier
*2132 Mechanical engineers	a	a	a	a	a	a	a	a	a	a	a	a	Partial Barrier

NOC Occupations	YK	BC	NU	AB	SK	MB	ON	QC	NB	NS	PEI	NF	Barrier
*2133 Electrical and electronics engineers	a	a	a	a	a	a	a	a	a	a	a	a	Partial Barrier
*2134 Chemical engineers	a	a	a	a	a	a	a	a	a	a	a	a	Partial Barrier
*2141 Industrial and manufacturing engineers	a	a	a	a	a	a	a	a	a	a	a	a	Partial Barrier
*2142 Metallurgical and materials engineers	a	a	a	a	a	a	a	a	a	a	a	a	Partial Barrier
*2143 Mining engineers	a	a	a	a	a	a	a	a	a	a	a	a	Partial Barrier
*2144 Geological engineers	a	a	a	a	a	a	a	a	a	a	a	a	Partial Barrier
*2145 Petroleum engineers	a	a	a	a	a	a	a	a	a	a	a	a	Partial Barrier
*2146 Aerospace engineers	a	a	a	a	a	a	a	a	a	a	a	a	Partial Barrier
*2147 Computer engineers	o	o	o	o	o	o	o	o	o	o	o	o	Partial Barrier
*2151 Architects	a	a	a	a	a	a	a	a	a	a	a	a	Partial Barrier
*2152 Landscape architects	a	pa	a	a	a	a	pa	a	a	a	a	a	Partial Barrier
*2153 Urban and land use planners	a	a	a	a	a	a	a	a	a	a	a	a	Partial Barrier
2154 Land surveyors	lf	lf	lf	lf	lf	lf	lf	lf a	lf	lf	lf	lf	Partial Barrier
*2161 Mathematicians, statisticians and actuaries	oa*	oa*	oa*	oa*	oa*	oa*	oa*	oa*	oa*	oa*	oa*	oa*	Partial Barrier
*2162 Computer systems analysts	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
*2163 Computer programmers	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
22 Natural and Applied Sciences: Technical													
*2211 Applied chemical technologists and technicians	a*	a*	a*	a*	a*	a*	a*	am*	a*	a*	a*	a*	Partial Barrier
*2212 Geological and mineral technologists and technicians	a*	a*	a*	a*	a*	a*	a*	a*	a*	a*	a*	a*	Partial Barrier
2213 Meteorological technicians	o	o	o	o	o	o	o	o	o	o	o	o	Partial Barrier
*2221 Biological technologists and technicians	a	a	a	a	a	a	a	am	a	a	a	a	Partial Barrier
2223 Forestry technologists and technicians	a	a	a	a	a	a	a	am	a	a	a	a	Partial Barrier
2224 Conservation and fishery officers	o	o	o	o	o	o	o	a	o	o	o	o	Partial Barrier
*2230 Civil engineering technologists and technicians and construction estimators(SOC)	a	a	a	a	a	a	a	am	a	a	a	a	Partial Barrier
*2232 Mechanical engineering technologists and technicians	a	a	a	a	a	a	a	am*	a	a	a	a	Partial Barrier
*2233 Industrial engineering and manufacturing technologists and technicians	a	a	a	a	a	a	a	am	a	a	a		

NOC Occupations	YK	BC	NU	AB	SK	MB	ON	QC	NB	NS	PEI	NF	Barrier
*2241 Electrical and electronics engineering technologists and technicians+A146	a	a	a	a	a	a	a	am*	a	a	a	a	Partial Barrier
*2242 Electronic service technicians (household and business equipment)	v	v	v	c	v	v	v	am	v	v	v	v	Partial Barrier
*2243 Industrial instrument technicians and mechanics	v	v	v	v	v	v	c	am	v	v	v	v	Partial Barrier
*2244 Aircraft instrument, electrical and avionics mechanics, technicians and inspectors	f	f	f	f	f	f	f	f am	f	f	f	f	Barrier
2251 Architectural technologists and technicians	a	a	a	a	a	a	a	am	a	a	a	a	Partial Barrier
*2252 Industrial designers	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
*2253 Drafting technologists and technicians	av*	av*	av*	av*	av*	av*	av*	av*	av*	av*	av*	av*	Partial Barrier
2254 Survey technologists and technicians	a	a	a	a	a	a	a	am	a	a	a	a	Partial Barrier
2264 Construction inspectors	l/a	l/a	l/a	l/a	l/a	l/a	l/a	l/a	l/a	l/a	l/a	l/a	Partial Barrier
2271 Air pilots, flight engineers and flying instructors	af*	af*	af*	af*	af*	af*	af*	af*	af*	af*	af*	af*	Barrier
2272 Air traffic control occupations	f	f	f	f	f	f	f	f	f	f	f	f	Barrier
2273 Deck officers, water transport	f	f	f	f	f	f	f	f	f	f	f	f	Barrier
2274 Engineer officers, water transport	f	f	f	f	f	f	f	f	f	f	f	f	Barrier
31 Health: Professional													
3111 Specialist physicians	lc	l	l	l	l	l	l	la	l	l	l	l	Barrier
3112 General practitioners and family physicians	l	l	l	l	l	l	l	la	l	l	l	l	Barrier
3113 Dentists	l	l	l	l	l	l	l	la	l	l	l	l	Barrier
3114 Veterinarians	l	l	l	l	l	l	l	la	l	l	l	l	Barrier
3121 Optometrists	l	l	l	l	l	l	l	la	l	l	l	l	Barrier
3122 Chiropractors	l	l	l	l	l	l	l	la	l	l	l	l	Barrier
3131 Pharmacists	l	l	l	l	l	l	l	la	l	l	l	l	Barrier
*3132 Dietitians and nutritionists	a	a	a	a	a	a	a	am	a	a	a	a	Partial Barrier
*3141 Audiologists and speech-language pathologists	a	a	a	a	a	l*	a	l*	l*	a	a	a	Partial Barrier
*3142 Physiotherapists	p	p	p	p	p	p	p	pa	p	p	p	p	Barrier
*3143 Occupational therapists	l	l	l	l	l	l	l	lm	l	l	l	l	Barrier
3151 Head nurses and supervisors	l	l	l	l	l	l	l	lm	l	l	l	l	Barrier

NOC Occupations	YK	BC	NU	AB	SK	MB	ON	QC	NB	NS	PEI	NF	Barrier
3152 Registered nurses	l*	l*	l*	l*	l*	l*	l*	lm*	l*	l*	l*	l*	Barrier
32 Health: Technical and Skilled													
3211 Medical laboratory technologists and pathologists' assistants	a	a	a	a	a	a	a	am	a	a	a	a	Partial Barrier
3212 Medical laboratory technicians	o	o	o	o	o	o	o	a	o	o	o	o	No Barrier
3213 Animal health technologists	a	a	a	ac	ac	a	a	a	a	a	a	a	Partial Barrier
3214 Respiratory therapists and clinical perfusionists	o	l	o	l	o	l	o	l am	o	o	o	o	Partial Barrier
3215 Medical radiation technologists	a	a	a	a	a	a	a	am	a	a	a	a	Partial Barrier
3216 Medical sonographers	a	a	a	a	a	a	a	am	a	a	a	a	Barrier
3217 Cardiology Technologists	a	a	a	a	a	a	a	am	a	a	a	a	Barrier
3218 Electroencephalographic and other diagnostic technologists n.e.c.	a	a	a	a	a	a	a	am	a	a	a	a	Barrier
3221 Denturists	l	l	l	l	l	l	l	l am	l	l	o	l	Barrier
3222 Dental hygienists and dental therapists	l	l	l	l	l*	l*	l	l am	l	l	l	l	Barrier
3231 Opticians	o	o	o	l	l	l	l	l am	l	l	l	l	Barrier
3233 Registered nursing assistants	o	lc	o	lc	lc	lc	lc	am	lc	o	o	lc	Barrier
3234 Ambulance attendants and other paramedical occupations	o	o	o	o	o	o	o	o	o	o	o	o	Partial Barrier
41 Social Science, Education, Government Services and Religion													
4112 Lawyers & Quebec notaries	lc	lc	lc	lc	lc	lc	lc	lc	lc	lc	lc	lc	Barrier
4141 Secondary school teachers	l	l	l	l	l	l	l	l	l	l	l	l	Barrier
4142 Elementary school and kindergarten teachers	l	l	l	l	l	l	l	l	l	l	l	l	Barrier
4143 School and guidance counsellors	l	l	l	l	l	l	l	l	l	l	l	l	Barrier
*4151 Psychologists	l	l	l	l	l	l	l	l	l	l	l	l	Barrier
*4152 Social workers	a	a	a	a	ap	a	a	amp	ap	a	ap	ap	Partial Barrier
*4153 Family, marriage and other related counsellors	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
4155 Probation and parole officers and related occupations	o	o	o	o	o	o	o	o	o	o	o	o	Partial Barrier
*4162 Economists and economic policy researchers and analysts	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
*4163 Economic development officers and marketing researchers and consultants	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier

NOC Occupations	YK	BC	NU	AB	SK	MB	ON	QC	NB	NS	PEI	NF	Barrier
4166 Education policy researchers, consultants and program officers	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
4167 Recreation & sports program supervisors & consultants	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
4168 Program officers unique to government	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
*4212 Community and social service workers	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
*4213 Employment counsellors	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
4215 Instructors and teachers of disabled persons	l a	l a	l a	l a	l a	l a	l a	l a	l a	l a	l a	l a	Partial Barrier
51 Professional - Art and Culture													
5111 Librarians	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
5112 Conservators and curators	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
5113 Archivists	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
5121 Writers	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
*5122 Editors	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
*5123 Journalists	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
*5124 Professional occupations in public relations & communications	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
*5125 Translators, terminologists and interpreters	a	a	a	a	a	a	a	am	a	a	a	a	No Barrier
5131 Producers, directors, choreographers and related occupations	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
5132 Conductors , Composers and Arrangers	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
5133 Musicians and Singers	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
5134 Dancers	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
5135 Actors	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
5136 Painters, Sculptors and other Visual Artists	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
52 Technical & Skilled – Art Culture and Recreation													
5211 Library and Archive Technicians and Assistants	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
5221 Photographers	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
5222 Film and Video Camera Operators	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
5223 Graphic Arts Technicians	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
5224 Broadcast Technicians	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier

NOC Occupations	YK	BC	NU	AB	SK	MB	ON	QC	NB	NS	PEI	NF	Barrier
5225 Audio and Video Recording Technicians	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
5226 Other Technical Occupations in Motion Pictures, Broadcasting and Performing Arts	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
5227 Support and Assisting in Motion Pictures, Broadcasting and performing arts	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
5231 Announcers and other Broadcasters	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
5241 Graphic designers and illustrating artists	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
5242 Interior designers	a	a	a	a	a	a	a	a	a	a	a	a	Partial Barrier
5245 Patternmakers - Textile, leather and fur products	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
5254 Program leaders and instructors in recreation and sport	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
62 Skilled Sales and Service													
6231 Insurance agents & brokers	I	I	I	I	I	I	I	I	I	I	I	I	No Barrier
6232 Real Estate Agents and Salespersons	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
*6233 Retail and wholesale buyers	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
*6241 Chefs	v	v	v	v	v	v	v	v	v	v	v	v	Partial Barrier
6242 Cooks	v	v	v	v	v	v	v	v	v	v	v	v	Partial Barrier
6251 Butchers and meat cutters, retail and wholesale	o	v	o	o	o	o	o	o	o	o	o	o	No Barrier
6252 Bakers	v	v	v	v	c	c	v	c	c	c	v	c	Partial Barrier
6261 Police officers	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
6262 Fire-fighters	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
6271 Hairstylists and barbers	a	a	a	a	a	a	a	a	a	a	a	a	Partial Barrier
6272 Funeral directors and embalmers	o	o	o	o	o	o	o	o	o	o	o	o	Partial Barrier
72-73 Trades & Skilled Transport and Equipment Operators													
*7231 Machinists and machining and tooling inspectors	v	v	v	v	v	v	v	c	v	v	v	v	Partial Barrier
*7232 Tool and die makers	o	v	o	v	o	v	v	v	v	v	v	v	Partial Barrier
7241 Electricians	v	v	v	c	c	c	c	c	c	c	c	v	Barrier
7242 Industrial electricians	v	o	o	o	o	v	v	v	v	v	c	v	Partial Barrier
7243 Power system electricians	v	o	v	v	o	v	o	o	o	o	o	o	Partial Barrier

NOC Occupations	YK	BC	NU	AB	SK	MB	ON	QC	NB	NS	PEI	NF	Barrier
7244 Electrical power line and cable workers	v	v	v	v	v	o	v	o	v	v	v	v	Partial Barrier
7245 Telecommunications line and cable workers	v	o	o	v	o	o	o	o	o	o	o	o	Partial Barrier
7246 Telecommunications installation and repair workers	v	o	v	v	o	o	o	o	o	o	o	o	Partial Barrier
7247 Cable television service and maintenance technicians	o	v	o	o	o	o	o	o	o	o	o	o	No Barrier
7251 Plumbers	v	c	v	c	c	v	c	c	c	c	c	v	Barrier
7252 Steamfitters, pipefitters and sprinkler system installers	v	c	v	c	v	v	c	c	v	v	v	v	Barrier
7253 Gas fitters	v	v	v	c	l	l	l	l	l	l	l	l	Partial Barrier
7261 Sheet metal workers	v	c	v	c	c	v	c	c	v	v	v	v	Barrier
7262 Boilermakers	o	v	o	c	v	v	v	c	v	v	v	v	Partial Barrier
7263 Structural metal and platework fabricators and fitters	o	v	o	v	o	o	v	o	v	v	o	v	Partial Barrier
7264 Ironworkers	o	v	o	c	v	o	v	c	v	v	o	v	Partial Barrier
7266 Blacksmiths & Die setters	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
7271 Carpenters	v	v	v	v	v	v	v	c	v	v	v	v	Partial Barrier
7272 Cabinetmakers	v	v	v	v	o	v	o	v	v	v	v	v	Partial Barrier
7281 Bricklayers	v	v	o	v	v	v	v	c	c	c	v	v	Partial Barrier
7282 Cement finishers	o	o	v	v	v	v	o	c	v	v	v	v	Partial Barrier
7283 Tilesetters	o	v	o	v	v	o	o	c	o	o	o	o	Partial Barrier
7284 Plasterers, drywall installers and finishers, and lathers	o	v	o	o	v	o	v	c	o	o	o	o	Partial Barrier
7291 Roofers and shinglers	v	c	v	v	v	v	o	c	v	v	v	v	Partial Barrier
7292 Glaziers	v	v	v	v	v	v	v	c	v	v	v	v	Partial Barrier
7293 Insulators	o	v	o	v	c	o	o	c	v	o	o	o	Partial Barrier
7294 Painters and decorators	v	v	v	v	v	v	v	c	v	v	v	v	Partial Barrier
7295 Floor covering installers	v	v	v	v	v	v	o	c	v	v	v	v	Partial Barrier
7311 Construction Millwrights and industrial mechanics (except textile)	v	v	v	v	v	v	v	c	v	v	v	v	Partial Barrier
7312 Heavy-duty equipment mechanics	v	v	v	c	v	v	v	c	v	v	v	v	Partial Barrier
7313 Refrigeration and air conditioning mechanics	v	c	v	c	c	c	c	c	c	c	v	v	Barrier
*7315 Aircraft mechanics and aircraft inspectors	f	f	f	f	f	f	f	f	f	f	f	f	Barrier
7316 Machine fitters	o	o	o	o	o	o	o	o	o	o	o	o	Partial Barrier

NOC Occupations	YK	BC	NU	AB	SK	MB	ON	QC	NB	NS	PEI	NF	Barrier
7317 Textile machinery mechanics & repairers	o	o	o	o	o	o	o	o	o	o	o	o	Partial Barrier
7318 Elevator constructors and mechanics	o	v	v	c	o	o	o	c	o	o	o	o	Partial Barrier
*7321 Motor vehicle mechanics, technicians and mechanical repairers	v	v	v	c	v	v	c	o	c	c	c	c	Barrier
7322 Motor vehicle body repairers	v	c	v	c	v	v	c	c	v	v	v	v	Partial Barrier
7331 Oil and solid fuel heating mechanics	v	v	v	o	o	o	o	o	v	v	v	v	Partial Barrier
*7332 Electric appliance servicers and repairers	o	o	v	c	o	o	o	o	v	o	o	o	Partial Barrier
*7333 Electrical mechanics	v	v	o	v	o	v	o	o	v	o	o	o	Partial Barrier
*7334 Motorcycle and other related mechanics	o	v	o	c	o	o	c	o	v	v	v	v	Partial Barrier
*7335 Other small engine and equipment mechanics	o	v	v	o	o	o	v	o	v	o	v	v	Partial Barrier
*7341 Upholsterers	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
*7342 Tailors, dressmakers, furriers and milliners	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
7343 Shoe repairers and Shoemakers	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
*7351 Stationary engineers and auxiliary equipment operators	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
*7352 Power systems and power station operators	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
7371 Crane operators	v	c	v	c	v	c	c	c	v	v	v	v	Barrier
7372 Drillers & Blasters	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
7373 Water Well Drillers	o	v	o	v	v	o	o	o	v	o	o	o	No Barrier
7381 Printing Press Operators	o	o	v	v	o	o	v	o	o	o	o	o	Partial Barrier
7382 Commercial divers	o	o	o	o	o	o	o	o	o	o	o	o	No Barrier
82 Primary Industry													
8241 Logging Machinery Operators	*	*	*	*	*	*	*	*	*	*	*	*	Partial Barrier
8261 Fishing masters and officers	o	o	o	o	o	o	o	o	o	o	o	o	Barrier
8262 Fishing vessel skippers and fishermen/women	o	o	o	o	o	o	o	o	o	o	o	o	Barrier